

Applicant : Koide, et al.  
Serial No. : 09/997,467  
Filed : November 28, 2001  
Page : 2 of 6

Attorney's Docket No.: 13711-002001 / PH-963PCT-  
US-CIP

**BEST AVAILABLE COPY**

IN THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

**Listing of the claims**

1. (Previously Presented) A non-adhesive and durable carboxylated latex product with inner surface and/or outer surface treated with an external carboxyl-group blocking agent comprising a non-adhesive cationic metal ion crosslinking agent having three or more valences, wherein the carboxylated latex is internally added with anionic aluminate salt or nonionic aluminum hydroxide gel.
2. (Previously Presented) The non-adhesive and durable carboxylated latex product according to claim 1, wherein the cationic metal ion crosslinking agent is an aluminum compound, a titanium compound, a zirconium compound or any combination thereof.
3. (Previously Presented) A non-adhesive and durable carboxylated latex product with inner surface and/or outer surface treated with an external carboxyl-group blocking agent comprising a non-adhesive organic crosslinking agent for a carboxyl group of the carboxylated latex, wherein the carboxylated latex is internally added with anionic aluminate salt or nonionic aluminum hydroxide gel.
4. (Previously Presented) The non-adhesive and durable carboxylated latex product according to claim 3, wherein the non-adhesive organic crosslinking agent for the carboxyl comprises an aziridine compound, an epoxy compound, a blocked isocyanate, an oxazoline compound, a carbodiimido compound, a melamine formaldehyde resin, an ureaformaldehyde

Applicant : Koide, et al.  
Serial No. : 09/997,467  
Filed : November 28, 2001  
Page : 3 of 6

Attorney's Docket No.: 13711-002001 / PH-963PCT-  
US-CIP

## BEST AVAILABLE COPY

resin, an isocyanate, a phenolformaldehyde resin, a glycol, a polyol, a diamine, a polyamine, a hexamethoxymethylmelamine, a methylolacrylamide, or any combination thereof.

5. (Previously Presented) A non-adhesive and durable carboxylated latex product with inner surface and/or outer surface treated with an external carboxyl-group blocking agent comprising a compound selected from the group consisting of glyoxals, polyamide compounds, polyamide polyurea compounds, polyamine polyurea compounds, polyamideamine polyurea compounds, polyamide polyurea glyoxal condensation reaction products, polyamideamine compounds, polyamideamine epihalohydrine condensation reaction products, polyamideamine formaldehyde condensation reaction products, polyamine epihalohydrine condensation reaction products, polyamine formaldehyde condensation reaction products, polyamine polyurea epihalohydrine condensation reaction products, polyamide polyurea formaldehyde condensation reaction products, polyamine polyurea epihalohydrine condensation reaction products, polyamine polyurea formaldehyde condensation reaction products, polyamideamine polyurea epihalohydrine condensation reaction products, polyamideamine polyurea formaldehyde condensation reaction products, and combinations thereof, wherein the carboxylated latex is internally added with anionic aluminate salt or nonionic aluminum hydroxide gel.

6. (Previously Presented) A non-adhesive and durable carboxylated latex product with inner surface and/or outer surface treated with an external carboxyl-group blocking agent comprising a compound selected from the group consisting of monofunctional amines, monofunctional epoxy compounds, monofunctional isocyanates, monofunctional blocked isocyanates, and combinations thereof, wherein the carboxylated latex is internally added with anionic aluminate salt or nonionic aluminum hydroxide gel.

7. (Previously Presented) A non-adhesive and durable carboxylated latex product with inner surface and/or outer surface treated with an external carboxyl-group blocking

Applicant : Koide, et al.  
Serial No. : 09/997,467  
Filed : November 28, 2001  
Page : 4 of 6

Attorney's Docket No.: 13711-002001 / PH-963PCT-  
US-CIP

## BEST AVAILABLE COPY

agent comprising a non-adhesive sizing agent, wherein the carboxylated latex is internally added with anionic aluminate salt or nonionic aluminum hydroxide gel.

8. (Previously Presented) A non-adhesive and durable carboxylated latex product with inner surface and/or outer surface treated with an external carboxyl-group blocking agent comprising a non-adhesive surfactant, wherein the carboxylated latex is internally added with anionic aluminate salt or nonionic aluminum hydroxide gel.

9. (Previously Presented) A non-adhesive and durable carboxylated latex product with inner surface and/or outer surface treated with external carboxyl-group blocking agent according to any one of claims 1 to 8, wherein the carboxylated latex is internally added and treated with anionic aluminate salt or nonionic aluminum hydroxide gel and any one or more of a non-adhesive internal carboxyl-group blocking agent comprising a non-adhesive aziridine compound, a non-adhesive epoxy compound, a non-adhesive blocked isocyanate, a non-adhesive oxazoline compound, a non-adhesive carbodiimido compound, a non-adhesive melamineformaldehyde resin, a non-adhesive ureaformaldehyde resin, a non-adhesive isocyanate, a non-adhesive phenolformaldehyde resin, a non-adhesive glycol, a non-adhesive polyol, a non-adhesive diamine, a non-adhesive polyamine, a non-adhesive hexamethoxymethylmelamine, a non-adhesive methylolacrylamide, glycoxals, non-adhesive polyamide compounds, non-adhesive polyamide polyurea compounds, non-adhesive polyamine polyurea compounds, non-adhesive polyamideamine polyurea compounds, non-adhesive polyamide polyurea glyoxal condensation reaction products, non-adhesive polyamideamine compounds, non-adhesive polyamideamine epihalohydrine condensation reaction products, non-adhesive polyamideamine formaldehyde condensation reaction products, non-adhesive polyamine epihalohydrine condensation reaction products, non-adhesive polyamine formaldehyde condensation reaction products, non-adhesive polyamide polyurea epihalohydrine condensation reaction products, non-adhesive polyamide polyurea formaldehyde condensation reaction products, non-adhesive polyamine polyurea epihalohydrine condensation reaction

Applicant : Koide, et al.  
Serial No. : 09/997,467  
Filed : November 23, 2001  
Page : 5 of 6

Attorney's Docket No.: 13711-002001 / PH-963PCT-  
US-CIP

**BEST AVAILABLE COPY**

products, non-adhesive polyamideamine polyurea epihalohydrine condensation reaction products, non-adhesive polyamideamine polyurea formaldehyde condensation reaction products, non-adhesive monofunctional amines, non-adhesive monofunctional epoxy compounds, non-adhesive monofunctional isocyanates and non-adhesive monofunctional blocked isocyanates, a non-adhesive sizing agent, beta-naphthalene-sulfonic acid formalin condensates, alkylnaphthalene-sulfonic acid formaline condensates and/or alkylmethyl taurinates.

10-25. (Canceled)